

## **CLAIMS**

What is claimed is:

1. A launching system for a roller coaster comprising:
  - a. a gripping conus;
  - 5 b. a connecting wire operably connected to the gripping conus; and
  - c. a drive means connected to the gripping conus via the connecting wire, wherein said drive means comprises:
    - i. a winch system;
    - ii. a turning sheave; and
    - 10 iii. a lifting cylinder removably connected to the connecting wire at its upper end and fixably mounted on a base.
2. The launching system of claim 2 further comprising
  - a. a tensioning cylinder connected to the turning sheave and the base and wherein the tensioning cylinder maintains constant tension on the connecting wire; and
  - 15 b. an accumulator connected to the lifting cylinder to maintain pressure in the tensioning cylinder at a constant value.
3. The launching system of claim 1, wherein the turning sheave is adapted to move in a specific direction to keep a constant tension on the connecting wire.
4. The launching system of claim 1, wherein the lifting cylinder is adapted to lift the  
20 connecting wire in a vertical direction.